

The Plot Item

A plot consists of two singly dimensioned arrays containing the X and Y coordinates respectively of a series of points which are to be treated as a unit or single item in the data array. It can be thought of as a sub-picture with respect to the data array in which it is an item. For a plot, $A(1,I)$ and $A(2,I)$ contain the addresses of the X and Y coordinate arrays. The type code for a plot is 3.0.

Point:	A (1,1)	X	Coordinates of point
	A (2,1)	Y	
	A (3,1)	1.0	Point code
	A (4,1)	(reserved)	Reserved for system use.
Line:	A (1,2)	X1	Coordinates of first endpt.
	A (2,2)	Y1	
	A (3,2)	2.0	Line code
	A (4,2)	(reserved)	
Line:	A (1,3)	X2	Coordinates of second endpt.
	A (2,3)	Y2	
	A (3,3)	2.0	Line code
	A (4,3)	(reserved)	
Plot:	A (1,4)	addr(X)	Address of array of X coords.
	A (2,4)	addr(Y)	Address of array of Y coords.
	A (3,4)	3.0	Plot code
	A (4,4)	(reserved)	
Text:	A (1,5)	X	Coordinates of start of text
	A (2,5)	Y	
	A (3,5)	addr(S)	Address of text string.
	A (4,5)	(reserved)	

Fig. 1 Layout of data items in a data array.

Name of Subroutine: RGEN

Purpose: To regenerate graphic orders for all currently displayed data arrays.

Calling Sequence: CALL RGEN

Arguments: None.

Notes: This routine is called internally whenever DSPLAY is called. Its function is to scan the list of defined data arrays and generate graphic orders for those currently displayed. The current default ID is unaffected. For a description of when to use this routine, see the notes on LPEN and under Adding_and Deleting_Data_Items.

Name of Subroutine: SCALE

Purpose: To redefine the limits of the user's coordinate system as previously set in DEFINE.

Calling Sequence: CALL SCALE (UOX, UOY, UEX, UEY, NX, NY, ID)

Arguments: UOX, UOY - The new origin in user's units.
UEX, UEY - The new axis endpoints in user's units.
NX, NY - The number of tie marks (excluding the origin) on the x and y axes respectively.
ID (optional) - The id of the data array whose scale is to be altered. If omitted, the current data array is assumed.

Notes: The endpoint values of the axes will be automatically displayed. If the array is currently being displayed, it will be redisplayed at the new scale.